

REMARKS

The present application contains claims 1-124, the status of which is as follows:

- (a) Claims 1-85, 92, and 99-124 have been canceled without prejudice.
- (b) Claims 86-88, 90, 93-95, and 97 are currently amended.
- (c) Claims 89, 91, 96, and 98 are as originally filed.

The Applicant thanks Examiner Flick for the courtesy of a telephonic interview with the Applicant's representative, Daniel M. Goldstein (Reg. No. 44,127) on October 14, 2009. It was proposed by the Applicant's representative that claims 86-88 would be patentable over the prior art of record, if rewritten in independent form to incorporate therein the limitations of claim 85. The Examiner stated that these amendments would require further search and consideration, upon submission of these amendments by the Applicant in a formal response.

(In addition, a telephonic interview had been scheduled for October 2, 2009, but did not take place because Applicant's representative did not keep the scheduled appointment.)

Amendments to the claims

Claims 86-87 have been amended to incorporate therein the limitations of claim 85. Claims 88 and 90 have been amended accordingly.

Claims 93-94 (which are generally parallel apparatus claims to method claims 86-87) have been amended to incorporate therein the limitations of claim 92 (which is a generally parallel apparatus claim to method claim 85). Claims 95 and 97 have been amended accordingly.

Rejection of claims 85-87 and 92-94 under 35 U.S.C. 102

The Examiner rejected claims 85-87 and 92-94 under 35 U.S.C. 102, over US 2002/0010414 to Coston ("Coston").

Claim 86 recites, *inter alia*, "wherein driving the current in the sequence comprises configuring the sequence to generally maximize a minimum distance between ablation sites into which current is driven during successive time periods." Claim 87 recites, *inter alia*, "wherein a sum of distances between temporally adjacent ones of the ablation sites into which current is driven is typically greater than such sum would be if the sequence is generated randomly." (emphasis added)

Regarding claims 86 and 87, the Examiner stated:

6. [Claims 86 and 93] Coston teaches the limitations and method steps of claims 85 and 92, upon which claims 86 and 93 depend. In addition, Coston discloses wherein the control unit is adapted to drive the current in sequence to typically maximize a minimum distance between electrodes into which current is driven during successive time periods (page 13, paragraph [0122]).
7. [Claims 87 and 94] Coston teaches the limitations and method steps of claims 85 and 92, upon which claims 87 and 94 depend. Coston further discloses the control is adapted to drive the current such that a sum of distances between temporally adjacent ones of the electrodes into which current is driven is typically greater than such sum would be if a sequence of electrodes is generated randomly (page 13, paragraph [0122]).

In paragraph [0122], Coston states the following:

[0122] An advantage of this microprocessor system is that the electrodes can be selectively energized based either on preprogrammed configurations or systematically based on the feedback control. The preprogrammed sequences of electrode firings could consist of sequential, every other electrode, sequential or alternate groups of 2 or 3, random, or any other conceivable combination. The present embodiment utilizes sequential activation starting from the first electrode of the electrode array 124 and then cycling sequentially through all remaining electrodes of the array.

Coston describes several possible sequences of electrode firings in paragraph [0122], namely "sequential, every other electrode, sequential or alternate groups of 2 or 3, random, or any other conceivable combination." However, none of these "generally maximiz[es] a minimum distance between ablation sites into which current is driven during successive time periods," as is recited in claim 86 of the present application. For example, using a random sequence, the distance between successive ablation sites is not maximized, nor is it maximized using alternate groups of 2 or 3 electrodes. Furthermore, Coston provides no motivation for "maximiz[ing] a minimum distance

between ablation sites into which current is driven during successive time periods," as is recited in claim 86 of the present application. Indeed, after describing a list of possibilities with no particular justification for any of them, Coston concludes by stating that "the present embodiment utilizes sequential activation, starting from the first electrode of the electrode array 124 and then cycling sequentially through all remaining electrodes of the array." Therefore, Applicant respectfully submits that claim 86 is not obvious in view of Coston.

Similarly, Coston does not disclose "...wherein a sum of distances between temporally adjacent ones of the ablation sites into which current is driven is typically greater than such sum would be if the sequence is generated randomly," as is recited in claim 87 of the present application. Furthermore, a person of ordinary skill in the art who read Coston would see no motivation to alter the method described in Coston such that "a sum of distances between temporally adjacent ones of the ablation sites into which current is drive is typically greater than such sum would be if the sequence is generated randomly," as is recited in claim 87. Therefore, Applicant respectfully submits that claim 87 is not obvious in view of Coston.

Thus, the Applicant asserts that claims 86 and 87 are patentable in view of Coston. Claims 93 and 94 are generally parallel apparatus claims to method claims 86 and 87. The Applicant asserts that claims 93 and 94 are patentable over Coston for similar reasons to those provided hereinabove for the patentability of claims 86 and 87 over Coston.

During the telephonic interview, the Examiner suggested that Applicant include a discussion in the Remarks, relating to whether the limitations in the apparatus claims are indeed limitations, or are simply method limitations. Applicant notes that the apparatus claims recite apparatus limitations, some of which are expressed using functional language. MPEP 2173.05(g) states:

A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients). There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

For example, claim 93 recites a plurality of electrodes and a control unit, "...wherein the control unit is adapted to typically maximize a minimum distance between electrodes into which current is

driven during successive time periods." Coston does not describe the apparatus recited in claims 93 and 94, because Coston does not describe the functional limitations recited in claims 93 and 94. In addition, although the device described in Coston could, in principle, be modified to have the features of the claimed apparatus, there is no suggestion in Coston that the device be modified in this manner, and a person of ordinary skill in the art would see no reason to do so.

Rejection of claims 88-91 and 95-98 under 35 U.S.C. 103

The Examiner rejected claims 88-91 and 95-98 under 35 U.S.C. 103, over Coston. Claim 88 is currently amended such that claims 88-91 are directly or indirectly dependent from claim 87. Claims 88-91 are therefore of narrower scope than claim 87, and are patentable. Similarly, claim 95 is currently amended such that claims 95-98 are dependent directly or indirectly from claim 94. Claims 95-98 are therefore of narrower scope than claim 94, and are patentable.

The Applicant believes the amendments and remarks presented hereinabove to be fully responsive to all of the grounds of rejection and objection raised by the Examiner. In view of these amendments and remarks, the Applicant respectfully submits that all of the claims in the present application are now in order for allowance. Notice to this effect is respectfully requested.

Dated: November 4, 2009

Respectfully submitted,

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